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WALTER M. DICKIE, M.D., Director

Weekly Bulletin

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EDITOR

Reduction of Infant Mortality*

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Infant mortality rates are still used in this country as the barometer of community welfare, embracing health, economic and social conditions, notwithstanding recent suggestions that results in public health must now be measured by other criteria.

In the development of public health, infant mortality rates have served to direct attention to the causes of infant deaths and consequently have developed specific activities aimed at prevention. Statistical evidence of the effectiveness of these measures is reflected in the national rates dating from 1915 showing a decline of 32.7 points or approximately a reduction of 33 per cent in a fourteen-year period.

While this is a creditable achievement, the 1929 national rate of 67 must be again nearly halved to match New Zealand's latest reported rate of 36 for 1928. Frequently this comparison is considered unjust, owing to variations between the two countries as to size, climate, racial factors, etc.

Such a contention is hardly justifiable, when certain selected localities and demonstrations have revealed figures quite comparable to those recorded as the lowest yet achieved, but should serve to stimulate further intensive preventive measures.

The record of achievement in the reduction of infant mortality in Los Angeles County is one which may be emulated easily in other localities where funds are available for a sufficiently intensive and extensive preventive health program covering the period of infancy.

The following table of comparative rates tells its own story:

Table I. Comparative Infant Mortality Rates for Specified Areas for Period 1923–1929, Inclusive

	1923	*1924*	*1925*	*1926*	*1927*	*1928*	*1929*	*Per cent reduction '23–'29*
United States	77	71	72	73	65	69	67	13%
California	73	67	69	63	62	62	63	14%
L. A. County (Unincorp. Ter.)	120	89	92	71	64	72	61	49+%

The decline in infant death rates during this seven-year period was approximately 13 per cent for the U. S. birth registration area, 14 per cent for California, and 50 per cent for Los Angeles County. Numerically speaking, this 50 per cent reduction in infant death rates represents the saving of 1200 infant lives during this time.

In Los Angeles County reductions in infant mortality by race are even more revealing than those in total rates.

Table II. Reduction in Infant Mortality Rates by Race in Los Angeles County (Unincorporated Territory)

Year	*White*	*Mexican*	*Japanese*	*Totals*
1923	80.54	250.62	53.39	120.16
1924	61.33	163.16	50.95	89.17
1925	58.51	166.12	66.86	91.98
1926	44.04	130.87	47.0	71.38
1927	47.75	100.99	42.10	64.49
1928	51.65	116.80	32.05	71.94
1929	39.63	104.45	39.68	60.61
Per cent reduction, 1923–1929	50.8%	58.3%	25.6%	49.5%

By race, the white rate has declined approximately 50 per cent, and the Mexican rate 58 per cent. Los Angeles County Mexican rate is 30.7 points lower than the state Mexican rate.

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* Read before Health Officers' Department, League of California Municipalities, Long Beach, October 7, 1930.

Table III. Per Cent Reduction in Infant Mortality Rates by Cause and Race in Los Angeles County (Unincorporated Territory)

Cause	*Race**	*Infant mortality rates*		*Per cent reduction*
		1923	*1929*	
Diarrhea and enteritis	White	19.0	3.1	83.6%
	Mexican	117.8	27.0	77.0%
	Japanese	21.8	15.8	**
	Total	44.1	11.2	74.6%
Respiratory diseases	White	7.5	4.1	45.3%
	Mexican	34.7	25.1	27.6%
	Japanese	12.1	.0	**
	Total	14.9	10.8	27.5%
Communicable diseases	White	2.5	2.2	12.0%
	Mexican	19.8	10.9	44.9%
	Japanese	2.4	.0	**
	Total	6.8	4.9	27.9%
Prematurity, congenital debility and malformations	White	40.5	22.6	44.1%
	Mexican	43.4	32.2	25.8%
	Japanese	12.1	15.8	**
	Total	37.6	25.5	32.1%
All others	White	11.5	7.3	36.5%
	Mexican	33.4	9.0	73.0%
	Japanese	4.8	7.9	**
	Total	16.1	7.9	50.9%

* Other races not included as numbers are negligible.
** Figures too few to be of statistical value.

The above table shows a marked reduction in infant deaths in the seven-year period from 1923 to 1929 in all principal groups, namely, intestinal, respiratory, communicable, congenital, and "all others," with the greatest reduction occurring in the first group.

Diarrhea and enteritis show a 75 per cent reduction for all races with 83 per cent for the white race and 77 per cent for the Mexicans.

In the respiratory group, the total reduction was 27 per cent with a 45 per cent decline in the white race and 27 per cent among the Mexicans.

The reduction for all races in communicable diseases was 27 per cent, the white rate reduction being 12 per cent as against 45 per cent in the Mexican rate.

The total reduction in the congenital group practically parallels that of the respiratory and communicable disease groups, showing 32 per cent decline. It is interesting to note, however, that in the white race the greatest reductions have been effected in the respiratory and congenital groups, while in the Mexicans the reduction was greatest in the communicable disease group.

The total reduction for all races due to "all other" causes was 50 per cent, the white race showing a 36 per cent reduction and the Mexican race a 73 per cent.

Other significant figures resulting from intensive child health activities in Los Angeles County are those obtained by comparing the incorporated and unincorporated areas. It should be noted that the county health department's system of twelve district health centers makes child hygiene service equally available to practically all county residents, whether residing in incorporated or unincorporated areas. Twenty-five child hygiene conferences are conducted in the major health centers and an additional fifty-nine in the remote districts.

Table IV. Comparative Infant Mortality Rates of Incorporated Cities and Unincorporated Territory of Los Angeles County for a Two-Year Period

	1928	*1929*
Incorporated cities	45.5	51.5
Unincorporated territory	71.9	60.6
Total area	55.5	56.0

The rate for the incorporated cities for this two-year period shows an increase of six points, while the unincorporated territory shows a reduction of over eleven points.

A partial explanation for the reduction in the rural areas is the intensive and extensive health activities carried on in the largest unincorporated county district, namely, Belvedere.

This district, with a population of over 71,000 and adjacent to the city of Los Angeles, has nominally all of the urban health problems, including a large Mexican population. Here the infant death rates have been lowered more markedly than in any other major district because of the intensive child hygiene activities conducted in this training and demonstration center.

Table V. Infant Mortality Rates by Year and Race, Belvedere District, Los Angeles County

Year	*White*	*Mexican*	*Total rate*
1923	91.53	286.95	170.37
1924	52.55	176.95	113.28
1925	69.79	129.17	102.88
1926	37.36	111.83	80.56
1927	46.87	81.33	65.42
1928	42.46	86.80	67.01
1929	35.29	85.84	60.93
Per cent reduction	61.4%	70.0%	64.2%

The above remarkable reductions argue well for specialized and intensive programs in public health.

Noteworthy is the total district reduction of 64.2 per cent as against 50 per cent for the entire county (Table II). By race the declines were 61.4 per cent for the white race and 70 per cent for the Mexican as against 50.8 per cent for white race and 58.3 per cent for the Mexicans in the county as a whole.

As in all districts the greatest reductions have been made in the Mexican rates, and in Belvedere this rate is 18 points lower than the county Mexican rural rate of 104.4, and 49 points lower than the state Mexican rate of 135.1.

The figures presented in this paper indicate what may be accomplished as a result of organized child-health work, not minimizing the part played by such general public health measures as improved sanitation, good housing, pure milk supplies, etc.

In no other field of public health activity can results be so definitely assured as in the reduction of infant deaths following a well-organized and intensive program of child health.

To achieve the irreducible minimum in infant mortality is still a challenge to public health workers, and the attainment of this goal may be realized through further scientific research into the specific causative factors of infant mortality and the application of preventive measures through intensive health education.

VENOMOUS ANT ATTACKS BOY

A velvet ant with a venomous sting has sent a Marin County boy to the hospital with a badly swollen arm. This species of ant resembles a wingless wasp covered with a fur coat of a dusty yellow color. It is known to scientists as a Mutilla, and ranchers call it the "cow killer." This insect attacks domesticated animals as well as human beings. It is found commonly among dry leaves along roadside and trail.

Ants of this species are said to cause losses to owners of small pigs in some parts of California. When the young hogs step upon the mounds made by the ants they may be subjected to terrific attacks by hundreds of the insects. Colonies of these ants may be destroyed by applying coal oil to the nests, using a funnel or pipe to reach the deeper parts. Human beings are not often bitten by these woolly insects. The Marin County case is the first one to be reported in several years. Cases do not often prove fatal in human beings, but there is great discomfort from the swellings caused by the injection of the ant's poison.

POSTURE WORK STARTED

The Bureau of Child Hygiene of the State Department of Public Health has obtained the services of an expert on posture who will conduct conferences and classes upon this important subject. The services of this expert are intended especially for children who are of preschool age. In the rural districts, however, where this work is desired, children who may be ten years old, or through the fourth grade, will be included.

Arrangements can be made through the local Public Health Nurses as they are assisting the physicians on the staff of the Bureau of Child Hygiene, in arranging for posture work in health conferences and posture classes which will be conducted at the same time in various localities.

The Division of Physical Education of the State Department of Education has given full support to this program of posture work undertaken by the Bureau of Child Hygiene.

We must dare, and again dare, and forever dare.—*Danton.*

MUSSEL AND CLAM QUARANTINE ORDER IS RESCINDED

The quarantine order, issued by the Director of the State Department of Public Health on July 16, 1930, by which the sale or offering for sale of clams and mussels gathered along that portion of the California coast which extends from Monterey County to Del Norte County was prohibited, became void on October 1, 1930.

Repeated examinations of clams and mussels, taken from the territory specified in the quarantine order, show a marked decrease in the toxicity of the crustaceans. Their toxicity is highest in midsummer, after which time there appears to be a gradual reduction in their poisonous qualities. By November, clams and mussels show little or no toxicity, but in March it begins to show itself again, increasing gradually until July when the peak of toxicity is reached.

All health officers and food inspectors have now been instructed to remove all restrictions on the gathering and offering for sale of these shellfish.

FEWER DIPHTHERIA DEATHS IN RICHMOND

Dr. Charles R. Blake, city health officer of Richmond, reports a marked reduction in diphtheria mortality in that city.

Many children during the past few years have been immunized against the disease. Following are the numbers of cases and deaths from diphtheria in Richmond, by years, 1924 to 1930:

Year	*Cases*	*Deaths*
1924	76	3
1925	28	0
1926	7	0
1927	12	1
1928	9	0
1929	5	0
1930 (to October 1)	2	0

To a longer and a worse life, a shorter and a better is by all means to be preferred by every one.—*Epictetus.*

MORBIDITY*

Diphtheria.

55 cases of diphtheria have been reported, as follows: Alameda 1, Livermore 1, Oakland 2, Colusa County 2, Humboldt County 2, Imperial County 1, Calipatria 1, Los Angeles County 2, Long Beach 1, Los Angeles 16, Montebello 2, Pomona 1, Whittier 3, Torrance 1, Madera County 1, Monterey County 1, Monterey 1, Orange County 2, Brea 1, Santa Ana 1, Placentia 1, Riverside 1, Sacramento County 1, Sacramento 1, San Francisco 4, Petaluma 1, Stanislaus County 2, Newman 1.

Scarlet Fever.

75 cases of scarlet fever have been reported, as follows: Berkeley 1, Oakland 4, Martinez 1, Fresno 1, Selma 1, Kern

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* From reports received on October 13th and 14th for week ending October 11th.

County 1, Los Angeles County 13, Glendora 1, Inglewood 2, Los Angeles 9, Pasadena 1, South Gate 2, Madera County 2, Merced County 2, Orange County 1, Fullerton 1, Sacramento County 1, Sacramento 1, Ontario 1, Upland 1, San Francisco 7, San Joaquin County 1, Stockton 9, San Mateo County 2, San Bruno 1, San Mateo 1, San Jose 3, Tehama County 1, Tulare County 2, Porterville 1.

Measles.

62 cases of measles have been reported, as follows: Alameda County 1, Berkeley 5, Hayward 2, Oakland 5, Los Angeles County 11, Long Beach 1, Los Angeles 5, Montebello 1, Redondo 1, South Pasadena 1, Anaheim 1, Riverside County 2, San Diego 12, San Francisco 4, Tracy 1, Santa Barbara County 1, Tulare County 4, Visalia 1, Ventura County 3.

Smallpox.

22 cases of smallpox have been reported, as follows: Albany 1, Fresno 1, Monterey Park 2, Anaheim 8, San Francisco 1, Tulare County 9.

Typhoid Fever.

13 cases of typhoid fever have been reported, as follows: Los Angeles County 2, Los Angeles 5, Monterey County 1, Napa County 1, Santa Clara County 1, California 3.**

Whooping Cough.

110 cases of whooping cough have been reported, as follows: Alameda 8, Berkeley 1, Oakland 9, Orland 1, Los Angeles County 14, Los Angeles 14, Santa Monica 3, Orange County 7, Fullerton 3, Sacramento 6, San Bernardino 2, San Diego 14, San Francisco 11, Redwood City 1, Sunnyvale 1, Ventura County 2, Wheatland 13.

Meningitis (Epidemic).

3 cases of epidemic meningitis have been reported, as follows: Oakland 1, Los Angeles 1, San Diego 1.

Encephalitis (Epidemic).

Imperial County reported one case of epidemic encephalitis.

Trichinosis.

San Francisco reported one case of trichinosis.

Jaundice (Epidemic).

Pasadena reported one case of epidemic jaundice.

Food Poisoning.

Los Angeles reported four cases of food poisoning.

Undulant Fever.

3 cases of undulant fever have been reported, as follows: Oakland 1, San Francisco 1, San Jose 1.

Poliomyelitis.

57 cases of poliomyelitis have been reported, as follows: Oakland 5, Selma 1, Los Angeles County 2, Long Beach 2, Los Angeles 4, Montebello 1, San Marino 1, South Gate 2, Sacramento 1, San Diego 2, San Francisco 25, Stockton 1, San Mateo County 1, Burlingame 2, San Mateo 3, San Jose 3, California 1.**

** Cases charged to "California" represent patients ill before entering the state or those who contracted their illness traveling about the State throughout the incubation period of the disease. These cases are not chargeable to any one locality.

COMMUNICABLE DISEASE REPORTS

Disease	1930				1929			
	Week ending			Reports for week ending Oct. 11 received by Oct. 14	Week ending			Reports for wee ending Oct. 12 received by Oct. 15
	Sept. 20	Sept 27	Oct. 4		Sept. 21	Sept. 28	Oct. 5	
Anthrax	0	0	1	0	0	3	0	0
Chickenpox	64	107	88	104	90	81	114	101
Coccidioidal Granuloma	3	0	1	0	0	0	0	0
Diphtheria	19	44	43	55	38	42	42	52
Dysentery (Amoebic)	0	1	1	0	0	0	1	0
Dysentery (Bacillary)	6	1	3	3	1	24	0	1
Encephalitis (Epidemic)	2	1	1	1	2	5	0	1
Erysipelas	5	5	7	7	9	19	8	8
Food Poisoning	8	3	1	4	1	5	24	1
German Measles	3	1	7	7	5	8	9	6
Gonococcus Infection	149	110	132	144	115	146	89	126
Influenza	11	29	31	26	12	21	24	26
Jaundice (Epidemic)	0	0	0	1	0	0	0	0
Leprosy	0	0	1	0	0	1	0	0
Malaria	0	0	1	1	2	1	6	2
Measles	42	59	82	62	32	26	44	41
Meningitis (Epidemic)	2	4	0	3	6	7	7	4
Mumps	95	111	118	90	171	222	195	192
Paratyphoid Fever	1	1	1	0	0	0	0	1
Pellagra	2	2	4	0	2	4	0	1
Pneumonia (Lobar)	26	29	22	42	26	56	26	43
Poliomyelitis	68	71	72	57	6	6	1	4
Rabies (Animal)	9	21	13	6	18	15	16	14
Scarlet Fever	37	67	82	75	75	102	76	137
Smallpox	8	12	16	22	26	28	16	16
Syphilis	187	129	161	155	85	178	144	142
Tetanus	0	1	2	1	1	5	0	1
Trachoma	3	4	1	1	1	1	12	6
Trichinosis	0	1	1	1	0	0	0	0
Tuberculosis	190	231	227	173	154	172	178	177
Tularemia	0	1	0	0	0	0	0	0
Typhoid Fever	19	17	18	13	7	6	13	15
Undulant Fever	2	5	3	3	2	1	5	3
Whooping Cough	112	80	100	110	121	100	116	108
Totals	1,073	1,148	1,241	1,167	1,008	1,285	1,166	1,229

The slowest of us can not but admit that the world moves.—*Wendell Phillips.*

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For the physician there is only one rule: Put yourself in the patient's place.—*Lord Lister.*

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In the field of observation, chance favors only the mind which is prepared.—*Pasteur.*

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The more you practice what you know, the more shall you know what to practice.—*W. Jenkins.*

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